

ROM

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2024 fall/winter

Fall/Winter 2024

Picnics and Pastimes
New installation depicts life in the
Safavid dynasty

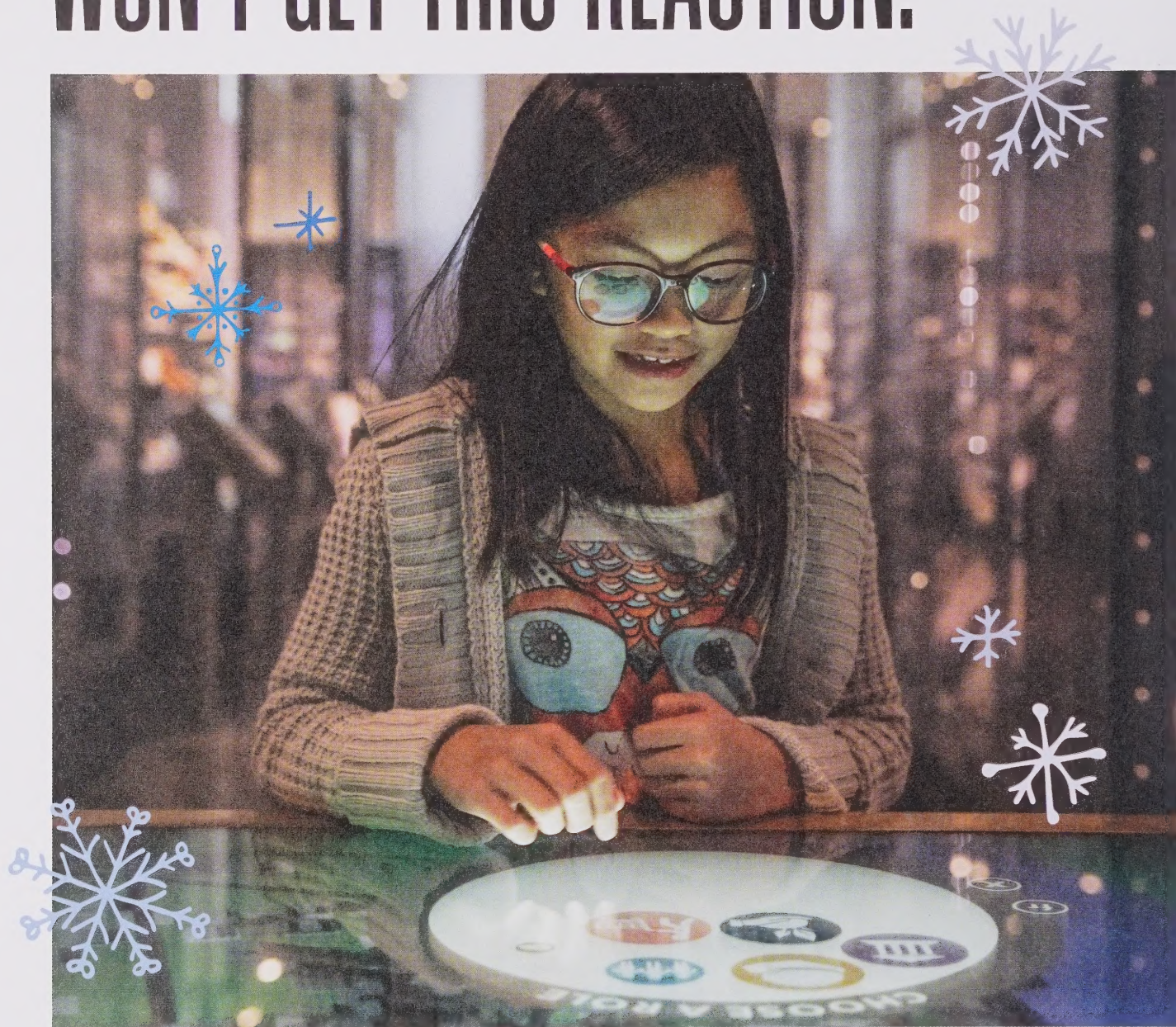
Heidi McKenzie
Contemporary art at the intersection
of ancestry and migration

Wildlife Photographer of the Year
A closer look at our relationship
with nature and the environment



NATURE
IN BRILLIANT
COLOUR

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NEW ACQUISITION

Post-war Japanese art.



10

NOTES FROM THE FIELD

The new technologies that are revolutionizing how we study biodiversity.

12

NEW INSTALLATION

Picnics and pastimes in Safavid Iran.

16

RESEARCH

Understanding how sperm whales communicate.

20

NATURE IN BRILLIANT COLOUR

The meanings behind colour in the natural world.



24

INTERVIEW

Heidi McKenzie in conversation with curator Deepali Dewan.



30

WILDLIFE PHOTOGRAPHER OF THE YEAR

Award-winning nature photographs from across the globe.

34

IN EVERY ISSUE

First Word	3
Member Benefits	6
Dispatches	8
Supporting ROM	38
ROMTravel	43
Object Highlight	44

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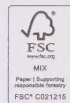
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100 Queen's Park
Toronto, ON M5S 2C6
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All adult Members must present a valid membership card and photo ID. Membership cards are not transferable except for Royal Patrons Circle (RPC) members.

ROM is home to a world-class collection of artworks, cultural objects, and natural history specimens. Not all of our 18 million objects and specimens are on display, though many are featured in our 40 gallery and exhibition spaces. As you plan your visit, please note that not everything within these pages will be on view in the galleries.



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A MUSEUM FOR ALL



ROM is in the midst of a continuing transformation that touches every part of the Museum, from our programs and exhibitions to our research to the very architecture of our building. First expressed in our 2018 Strategic Direction, the goal of this transformation is to become one of the world's foremost 21st-century museums—a thriving cultural and civic hub, ever more relevant to the diverse city and province we serve.

Central to this vision is our effort to remove barriers to access and make it possible for everyone to participate in the life of the Museum—even if they can't afford to buy a ticket.

Our summer-long Free Main Floor pilot program—back for the third time—is just one example of our plans. Last summer, ROM attracted close to 75,000 visitors exclusively for the free experience—more than twice as many visitors as the previous summer. At ROM, those visitors were able to enjoy an array of free performances and programs, from local jazz ensembles to hands-on crafts inspired by artworks from the Museum's collection. The success of Free Main Floor should also give us even greater confidence in OpenROM, which will make the main floor free all year long.

Our ability to welcome more members of the public through our doors is thanks to our government partners, donors, members—and our supporters like you. Additionally, your support helps bring in new exhibitions, including *Nature in Brilliant Colour*, which you will learn more about in this issue.

Opening to the public on December 14, this exhibition invites visitors to discover the power and meaning of colour in nature, from the vivid green of an emerald to the iridescent shades found on a peacock's plumage. And it does so in the most engaging way possible: with a combination of immersive projections, soundscapes, and amazing natural specimens.

So, thank you, for helping bring *Nature in Brilliant Colour*—and countless new visitors—to ROM.

A stylized, handwritten signature in black ink.

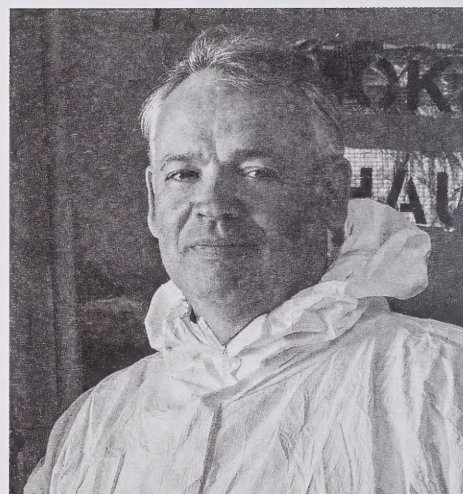
Josh Basseches
ROM Director and CEO

CONTRIBUTORS



Fahmida Suleman
Senior Curator, Islamic World

Fahmida Suleman holds a Doctorate in Islamic Art from Oxford University and is an Associate Professor at the University of Toronto (status only). She curated the 2023 exhibition *Being and Belonging: Contemporary Women Artists from the Islamic World and Beyond*. Before joining ROM, Fahmida was the Phyllis Bishop Curator for the Modern Middle East at The British Museum.



Oliver Haddrath
Technician, Birds

Oliver Haddrath is a research technician and is responsible for the operations of one of ROM's two molecular genetic research laboratories, where the latest DNA technologies are used to study the relationships among species, examine the genetics of rare and endangered animals, and unravel the mysteries of the past using ancient DNA.



Tabassum Siddiqui
Communications Manager

The newest addition to ROM's publicity team, Tabassum Siddiqui is a communications specialist with a focus on media relations, stemming from two decades as a journalist for the CBC, *The Globe and Mail*, *Toronto Star*, and more. A culture writer and critic with deep roots in Toronto's arts scene, she also serves on the Polaris Music Prize and Prism Prize juries.



Jacqueline Miller
Technician, Mammals

Jacqueline Miller co-manages ROM's Mammals collection. She holds a PhD in Ecology and Evolutionary Biology, specializing in animal communication, anatomy, and behaviour. Jacqueline is the author of several scientific and popular publications, and her most notable contributions centre on rodent acoustic communication, whale biology and genomics, rodent systematics, and anatomy.

Member Benefits

Dispatches

New Acquisition

Notes From the Field

New Installation

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PART 1

EXCLUSIVE MEMBER PREVIEWS

Members see it first and for free. Join us at these upcoming Member-exclusive exhibition previews.

ROM special exhibitions are generously supported by the Royal Exhibitions Circle.



Nature in Brilliant Colour

Friday, December 13, 2024 | 10:00 a.m. to 5:30 p.m.
Saturday, December 14, 2024 | 10:00 a.m. to 12:00 p.m.



Wildlife Photographer of the Year

Friday, December 20, 2024 | 10:00 a.m. to 5:30 p.m.
Saturday, December 21, 2024 | 10:00 a.m. to 12:00 p.m.



Auschwitz. Not long ago. Not far away.

Thursday, January 9, 2025 | 12:30 p.m. to 5:30 p.m.
Thursday, January 9, 2025 | 6:30 p.m. to 9:30 p.m.
Saturday, January 11, 2025 | 10:00 a.m. to 12:00 p.m.

Call for Nominations

A Member-elected ROM Trustee position will become vacant on June 30, 2025.

The incumbent, Virginia Van Vliet, has served one three-year term as a Member-elected Trustee and is eligible to stand for an additional three-year term. The term of office is from July 1, 2025, to June 30, 2028. A call for nominations will be open from Monday, March 17 to Friday, April 18, 2025. Should more than two candidates be eligible, an election will be held from Monday, May 12 to Monday, May 26, 2025.

If you are interested in pursuing a Member-elected Trustee position on ROM's Board of Trustees, please contact election@rom.on.ca for additional details before March 14, 2025.

For more information on the nomination and election rules, please visit us online. Members are encouraged to update their contact information by providing Membership with a current email address by calling 416.586.5700.

Guild of Immortals

Do your kids have a dinosaur-sized appetite for adventure? Join the Guild of Immortals—an adventure club exclusively for young ROM Members. Young Members receive a handbook filled with fun activities and interesting facts. They can collect stickers in their handbook by completing activities, visiting the Museum, and attending events. Those who complete their handbook will receive a special glow-in-the-dark enamel pin to commemorate their accomplishment.

In addition, young Members are invited to special Guild of Immortals events, where they can speak to ROM experts, see real specimens, and participate in fun crafts and other activities.

Stay tuned for details on our next Guild of Immortals events, happening on Sunday, December 8, 2024 and Sunday, February 23, 2025.

For a list of all Member-related events and programs, visit rom.on.ca/members/events.



Learn more and register at rom.on.ca/guild.



Canadian Museums and Art Galleries

From the Art Gallery of Nova Scotia to the Montreal Museum of Fine Arts, ROM Members get free or discounted tickets to some of Canada's best galleries and museums.



Learn more at rom.on.ca/reciprocal.

Member Tours



Exclusive Tours for Members

Members have special access to unique guided tours throughout the year. Join us for these newly launched tours and explore the collections through a different lens.

Dino-mite Adventure
Offered through December
Registration is required.

Have you ever wondered why dinosaurs are like the superheroes of the animal kingdom? While we might not get to see these giants roaming the Earth again, we can come face-to-fossil-face with them and see if they really live up to their legendary status.



Watch your eNews for registration details or visit rom.on.ca/members/events.

Events



Member Evening

Enjoy a special night at the Museum, where you can mingle with other Members and learn from our experts. Mark your calendars—the next Member Evening is on February 6, 2025.



Member Weekend

Art Gallery of Ontario
317 Dundas Street West,
Toronto, ON

**Saturday, February 22, 2025, to
Sunday, February 23, 2025**



For a list of all Member-related events and programs, visit rom.on.ca/members/events.

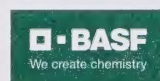
Special Programming



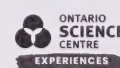
ROM for the Holidays

Join us this winter in a vibrant exploration of colour. Enjoy a packed slate of programming running from December 26, 2024 to January 5, 2025, including hair-raising demos with the Ontario Science Centre's iconic Van de Graaff Generator. From scavenger hunts and activation stations to special performances, celebrate the holidays with a visit to ROM.

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As a ROM Member, you support everything from acquisitions and field research to increased accessibility and new, more immersive exhibitions. Thanks for belonging—and believing in what we do.

You make ROM better.

AUSCHWITZ. NOT LONG AGO. NOT FAR AWAY.



JANUARY 27, 2025, marks the 80th anniversary of the liberation of Auschwitz. Coinciding with that anniversary is a new exhibition opening at ROM that examines the history and legacy of the most significant site of the Holocaust. Opening on January 10, 2025, *Auschwitz. Not long ago. Not far away.* features hundreds of authentic objects as well as archival documents and historic photographs. It is one of the most comprehensive exhibitions ever created on the subject.

Auschwitz became a system of death and concentration camps in which more than one million Jews and tens of thousands of other prisoners of war (including Poles, Romani, and Soviets) were killed in a systematic and industrialized manner. *Auschwitz. Not long ago. Not far away.* tells the stories of more than 400,000 registered prisoners of the Auschwitz concentration camps, as well as the hundreds of thousands of murdered men, women, and children. Featured objects include concrete posts that were once a part of the Auschwitz II-Birkenau concentration camp fence, large portions of an original prisoners' barrack, a gas mask used by the SS garrison members who staffed the concentration camps, as well

as personal objects such as shoes, clothing, children's dolls, and suitcases that had been packed by Auschwitz deportees in the hopes of one day returning to their lives.

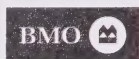
The exhibition explores the dual identity of the Auschwitz camp complex: as the largest documented mass murder site in human history and as a symbol of the borderless manifestation of hatred and human atrocity. Physical objects and archival records provide a contextual framework for the socio-political landscape in Europe before the Auschwitz camp, as well as its day-to-day environment and continued legacy, raising awareness of the machinations at work in realizing such systemic barbarism.

Auschwitz. Not long ago. Not far away. is curated by world-renowned scholars Robert Jan van Pelt, Michael Berenbaum, and Paul Salmons, in collaboration with historians and curators from the Auschwitz-Birkenau Memorial and Museum, among others. The exhibition underscores a critical need to understand the underlying conditions that allowed the Holocaust to happen. By reflecting on the past, visitors are invited to consider their own responsibility in creating a more inclusive and tolerant society.

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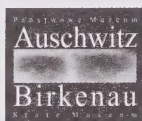
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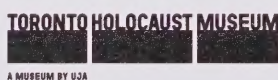
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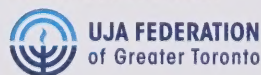
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IARTS GRANT 2024–2025



PIKA GHOSH IS THE RECIPIENT of the 2024–2025 IARTS Textiles of India Grant. Ghosh is a U.S.-based scholar of the material culture of Eastern India. Her research project will explore contemporary and historical embroidery practices in the Bengal region through the *kantha* (considered a household article and women's work) and the *colcha* (created centuries earlier as part of the maritime export of luxury textiles from Bengal for the Portuguese elite).

Examining historical examples side by side, Ghosh asserts a continuous history between these two embroidery practices, reimagining repositories of embodied knowledge that was handed down over generations. Her research will result in new scholarship and public programming that brings contemporary *kantha* embroiderers to ROM.

The IARTS Textiles of India Grant supports projects on Indian textile arts. This biennial grant of \$15,000 CAD can be used anywhere in the world by anyone in the world toward a project that enhances knowledge about Indian textiles, dress, or costume. Applicants can include scholars, curators, educators, community leaders, artists, and enthusiasts.

Donations made on behalf of the Chandaria Charity Trust Reg. established the IARTS Textiles of India Fund to help educate, document, preserve, and create Indian textiles well into the future. The fund was created in honour of Arti Chandaria (1960–2015).

LUNAR NEW YEAR

AS PART OF ROM'S annual zodiac installations, a forthcoming display will focus on the use of snake motifs as we mark the Year of the Snake, the sixth of twelve animals in the Chinese zodiac. People born during this year bear the attributes of wisdom and charisma. Celebrate Lunar New Year at ROM, and learn more about how snake symbolism has influenced art through the ages.



Snake from a set of twelve Famille Verte Porcelain Chinese Zodiac Figures, after 1900, China, porcelain decorated with polychrome enamels. Museum purchase generously supported by Glenda Garbutt and Anthony M. Lee.

ROM BOUTIQUE

ROM MEMBERS ENJOY a 10% discount at ROM Boutique. The boutique offers a unique collection of local, international, and artisanal products themed to art, culture, and nature, reflecting the beauty and diversity of the Museum's galleries and exhibitions.

Save 30%* at upcoming ROM Boutique sales:
Friday, November 22 to Sunday, December 1, 2024
Friday, February 7 to Monday, February 17, 2025

*All sales are final. This 30% discount cannot be combined with your regular ROM Member discount of 10%.

POST-WAR JAPANESE ART

A large collection of modern and contemporary Japanese prints arrives at ROM

By Akiko Takesue

ROM RECENTLY RECEIVED A DONATION of 192 Japanese modern and contemporary prints created from the 1950s to the 2000s, along with 24 ceramics and lacquerwares, from the estate of the late Shozo Uno and Edward “Ted” Johnston in Toronto.

Uno and Johnston lived together for more than 50 years and were always big fans of Japanese works of art. They collected a large number of prints, ceramics, lacquerwares, dolls, and other objects throughout their lives.

Uno and Johnston’s collection of modern and contemporary prints by 111 artists of different styles is exceptional in terms of size and diversity. Diversity and volume are the keys to understanding Japanese print works from the 1950s to the 1990s. After Japan’s defeat in the Second World War in 1945, print art came to be understood as the quintessential genre in the development of modern Japanese art. Japanese modern prints were first collected by American officers who were stationed in Japan during the Occupation period (1945–1952). After the war, art objects were important components of economic reconstruction in Japan. Drawing on the tradition of printmaking from the Edo period (1603–1868) and the already established global popularity of those prints, Americans considered print art as art representing Japan. Japanese printmakers and publishers quickly responded to this new foreign market, and their works became sought-after from the 1950s to the late 20th century, winning top awards in international print biennales and competitions. Thanks to their affordability and plurality, print works

appealed to a large number of middle-class collectors throughout the U.S. whose collections are now found in many art museums, including the Art Institute of Chicago, the Brooklyn Museum, and the Philadelphia Museum of Art. Without strong promotion by some American collectors, these Japanese prints would not have been able to establish such high status in the world of modern print art.

Johnston came to Canada from Belfast in Northern Ireland in the 1950s. Uno was born and raised in Japan and immigrated to Canada in the 1960s in an extraordinary trajectory for a young Japanese man who was part of the 2SLGBTQ+ community. The two met in Toronto in the 1960s and together amassed a large collection of modern prints that was not only formed by their personal preference but also reflected the socio-historical circumstances of the late 20th century. The diverse works and artists included in this collection strengthen and diversify ROM’s already strong Japanese print collection, which features nearly 3,200 prints (mainly from the Edo and Meiji periods), the largest collection in Canada and one of the finest in North America. It is a collection that helps us understand the social aspects of art and cultural exchange and the ways Japanese art has been received and perceived outside the country.

Among the 111 artists in Uno and Johnston’s collection, 11 are women. Printmaking was a traditionally male-dominant artistic genre in Japan, but the post-war era witnessed an emergence of several women printmakers, of whom Reika Iwami (1927–2020) was one.

Iwami is considered the first Japanese woman print artist “to achieve the same status and worldwide recognition as male artists,” according to Mary and Norman Tolman in *Collecting Modern Japanese Prints, Then & Now*, with her powerful compositions; simple, abstract designs; and embossed and textured surfaces that emerge through limited colours. Besides pursuing her own artistic expression, Iwami was instrumental in founding the *Joryū Hanga Kyōkai* (Women’s Print Association) in 1956, the first of its kind and one that played a decisive role in bringing talented women printmakers to the forefront. These artists’ innovative, modernistic styles pushed the boundaries of Japan’s long printmaking tradition. Here, Iwami, who was also a haiku poet, created a striking, abstract image of various shades of black ink with floating gold accents against an embossed background. This print, called *Score of Water B*, is simultaneously powerful and poetic and evokes ambivalent memories.

Starting next April 2025, prints from this collection will be on display on the main floor of the Museum through multiple rotations.

Reika Iwami (1927–2020)

Score of Water B

1971

Woodblock print with gold foil

Image: 53.1 × 80 cm

Paper: 59.6 × 87 cm

Gift of the estate of Shozo Uno and Edward Johnston

Dr. Akiko Takesue is Bishop White Committee Associate Curator of Japanese Art & Culture at ROM.



WHAT'S IN A NAME?

ROM's critical role in surveying biodiversity

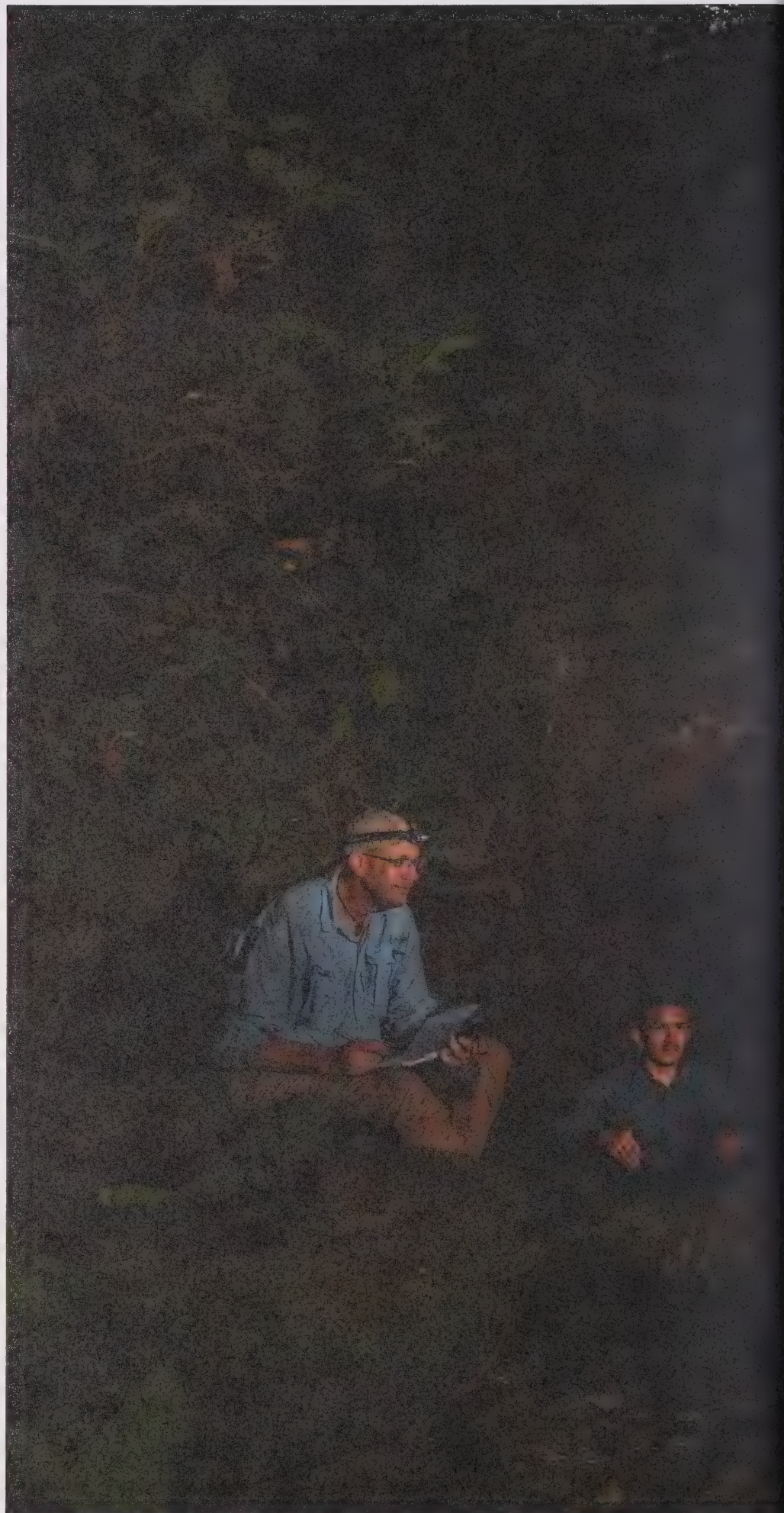
By Nathan K. Lujan

HOW MANY OF US, upon seeing a bird, plant, or insect, stop to think ... Who is that? How should it be classified? What *species* is that? Fundamental to humanity's relationship with nature is our desire to classify and name our non-human neighbours, with local names varying widely by region and culture. Indeed, how we answer these questions says a lot about where, and with whom, we live.

The common lake fish known in Ontario as Sheepshead goes by Gaspergoo in Louisiana. In Toronto, any small silvery fish might be called a "minnow," whereas aficionados and scientists differentiate among no fewer than 38 minnow species in Ontario alone, from the Allegheny Pearl Dace to the Spottail Shiner. Taking this even further, Tukano cultures in the northwestern Amazon are noted for their precision in distinguishing each of several hundred tropical fish species inhabiting the streams and rivers of their rainforest home, echoing the famous precision with which Inuit cultures in Canada recognize gradations of snow and ice.

The myriad ways in which people name nature is, on one hand, a poignant manifestation of culturally diverse perspectives. Yet for biodiversity scientists who must accurately and efficiently collect, collate, and communicate species data across generations, cultures, and communities, a parallel system for consistently and precisely naming nature is critical, as are new tools for rapidly obtaining the correct name for each species.

Tragically, the ongoing acceleration of global biodiversity loss is placing scientists and researchers in an urgent race to not only protect documented species but also discover, differentiate, and name the staggering diversity of species that remain undescribed. More so now than ever, biologists need the help of new technologies and big data to rapidly and unambiguously assign Earth's multitude of species their



Lujan (left) collecting data with colleagues Ismael Fernandez, Fernando Sanchez, and José Vicente Montoya from the Universidad de las Américas in Quito.



proper scientific name. ROM's Natural History curators and collections, and the cutting-edge biodiversity research they lead and facilitate, are helping pave the way forward.

Much of my recent research as ROM's Associate Curator of Fishes has focused on resolving taxonomic confusion and improving species identification tools for fishes in the Western Amazon of eastern Ecuador and northern Peru. Rivers in this area are the most biodiverse in the Amazon basin, which itself is Earth's most biodiverse freshwater ecosystem. If fisheries biologists in Ontario find it challenging to identify a few dozen minnow species—a fraction of the estimated 5,000 fish species in the Amazon—revolutionary new technologies will be required for local and foreign scientists and conservationists to rapidly, yet accurately, identify and monitor Amazonian fish communities facing threats from dams, mining, deforestation, and drought.

Environmental DNA (eDNA) metabarcoding' is a state-of-the-art approach that students and staff of ROM's Fish Division, collaborators in Ecuador and Peru, and I are developing to meet this need. Foundations for this approach were laid only a couple decades ago in Guelph, Ontario, by Professor Paul Hebert, the pioneering founder of the Barcode of Life initiative. Dr. Hebert was inspired while scanning groceries to develop a DNA-based tool for identifying any species on Earth, just as the unique sets of vertical black lines help differentiate whole milk from 2 percent at the grocery store checkout counter. For hundreds of years before then and still today when we're unable to immediately read a species' DNA, taxonomic identifications can be made only by examining anatomical characteristics that can be highly variable and require specialized training to properly interpret.

The Barcode of Life initiative launched a global taxonomic renaissance. Labs around the world rushed to sequence the cytochrome oxidase I (COI) gene—the DNA region that Hebert and colleagues designated as a global standard—to build reference databases for as many species as possible. In a remarkably short period, vast libraries of COI sequences for thousands of species were generated, aggregated, and archived in publicly accessible, government-funded repositories.

Unfortunately, cracks in this system have also begun to show. In the decentralized rush to generate and share COI sequences for all Earth's species, critical links between these sequences and source specimens were lost. Even when such links were retained, the invaluable source specimens that link the COI sequences to our system of taxonomy via their anatomical characters have too often been kept in small, remote, or poorly resourced labs unwilling or unable to make specimens available for ID verification by taxonomic experts, who



Amazonian fish specimens that have been collected and preserved must be identified individually before being added to ROM's collections. Uniquely coded tags link the specimens to genetic samples that have also been collected and preserved separately.

Working with eDNA is like working with magic. It is as if we have been teleported to a future *Star Trek* universe in which any object or organism can instantly be identified with the mere swipe of a tricorder.

themselves have too few resources to travel to complete such verifications. Consequently, existing barcode reference libraries are plagued by misidentifications, and correcting these misidentifications on a large scale is nearly impossible.

Now, the advent of eDNA metabarcoding has instigated a second revolution in molecular taxonomy, with astounding implications, especially for detecting rare, endangered, or potentially threatening organisms, such as invasive species. Using new genetic sequencing technologies that enable the eDNA approach, biodiversity scientists have suddenly been empowered to precisely identify hundreds of species at a time from simple environmental samples, such as a few litres of water or even air, based on DNA contained in the multitude of dead cells that all multicellular organisms constantly shed into their environments.

Working with eDNA is like working with magic. It is as if we have been teleported to a future *Star Trek* universe in which any object or organism can instantly be identified with the mere swipe of a tricorder. While we are still a long way from being able to conduct eDNA analyses instantly, our ability to molecularly identify up to several hundred species in a water sample in a few days is still a major advancement over what previously would have required weeks to months of arduous fieldwork.

Serendipitously, the new metabarcoding approach is also providing biodiversity scientists the much-needed opportunity to build all new specimen-backed barcode reference databases in a way that resolves longstanding flaws in the previous piecemeal approach. Due to limitations of the sequencing technologies used for eDNA, the COI sequence that was Hebert's original standard has been replaced by a neighbouring gene known as 12S. As a result, entirely new reference databases must be generated for the new barcode region, providing a critical opening that ROM, with its vast collection of frozen genetic samples and linked whole specimens, is ideally positioned to fill.

Recognizing this need and opportunity in 2021, I was fortunate to be invited by colleagues at the Universidad de las Américas (UDLA) in Quito, Ecuador, to lead the creation of a new eDNA reference database for the Ecuadorian Amazon. I joined collaborators from UDLA and World Wildlife Fund on two expeditions to eastern Ecuador in 2021 and 2022 and led two additional expeditions in 2022 and 2023 to adjacent areas of northern Peru with colleagues from the Universidad Nacional Mayor de San Marcos in Lima and the Instituto de Investigaciones de la Amazonía Peruana in Iquitos, and funding from ROM and the New Orleans-based Coypu Foundation. In total, this fieldwork yielded a collection of nearly

10,000 whole specimens of over 600 Western Amazonian fish species, plus approximately 4,000 frozen genetic samples. My lab in ROM's Fish Division, with the help of Museum technicians and students from the University of Toronto, is using this material to establish the first centralized, taxonomically comprehensive, 12S DNA reference library for Western Amazonian fishes.

Prior to our project, there was not a single COI sequence for a fish from the Ecuadorian Amazon in a major publicly accessible repository and only one 12S sequence. Already, our project has generated over 400 COI sequences and over eight hundred 12S sequences, and the library is growing.

Our goal is to make a combined 12S and COI reference library that is publicly available and to link each of the species-specific DNA sequences to a specimen that is archived and permanently accessible at ROM. This will mean that when the library is used to identify eDNA samples, future generations of scientists will know exactly to which individual specimen the DNA sequence belongs. Moreover, researchers will be able to either visit ROM or request each specimen on loan to study it and update taxonomic identifications as our understanding of Amazonian diversity and species nomenclature changes over time.

In a recent trial using an early draft of our new reference library to identify real environmental DNA sequences from the Ecuadorian Amazon, our data performed well, improving the rate of accurate species-level identifications by over 60 percent compared with existing non-Ecuadorian databases. The total number of species identified remains low, though, increasing from only 87 to 141 out of a total of approximately 410 fish species indicated by the eDNA samples.

While we are making enormous advancements in novel methodologies to survey biodiversity, building the infrastructure to maximize these tools is an uphill climb. The years of field- and museum-based work required to collect and name each species to establish a comprehensive library of linked specimens and sequence data is a monumental task. Still, this work is essential. At a time when hope for saving nature can be scarce, I am more excited than ever that the tremendous potential of ROM's century-old Natural History collections can be unlocked to meet the urgent needs presented by modern approaches to naming and protecting our non-human neighbours.

"Meta" in this context refers to the synchronous reading of hundreds of DNA sequences from a single environmental sample, with a computer needed to disentangle the individual sequences.

Dr. Nathan K. Lujan is Associate Curator of Fishes at ROM. This position is generously supported by the Herbert A. Fritch Family Foundation.

PICNICS AND PASTIMES

Objects from 17th-century Iran offer a glimpse into life during the Safavid dynasty

By Fahmida Suleman

A NEW INSTALLATION AT ROM highlights intricate objects that offer a window into the pleasures, pastimes, and artistic heritage of Iran during the Safavid dynasty (1501–1736). The Safavids, a Shi'a Muslim dynasty, were great patrons of the arts and architecture and fostered international trade and diplomacy from their newly built capital city, Isfahan, in central Iran. A popular Persian saying dating back to the 17th century, *esfahan nesfe-jahan* (Isfahan is half the world), captures the cultural vibrancy and cosmopolitan nature of this bustling city. Isfahan is famous for its architecture, with grand boulevards, gardens, palaces, and coffee houses, alongside beautifully tiled mosques, churches, and synagogues.

The focus of the display is a spectacular ceramic-tiled arch, made around 1685–1695 in Isfahan, which depicts a group of fashionably dressed noblemen picnicking in a meadow of flowers and trees. ROM researchers Lisa Golombek and Robert B. Mason have spent many years studying and digitally reconstructing Safavid tile arches. They propose that ROM's arch was one of over 50 others that were made specifically to decorate the walls inside an enclosed palace garden during the Safavid period. Their fascinating research will soon be published in a new book, *Princes, Dervishes and Dragons: The Tile Arcade from Safavid Isfahan (c. 1685–95)* (Edinburgh University Press, 2025). In it, they

convincingly argue that ROM's tile arch and over 50 others with different narrative scenes probably flanked a long, narrow garden with a grand pavilion called the Talar-e-Tavileh (Pavilion of the Stables), which was used by the Safavids to host New Year celebrations, court ceremonies, religious festivals, and diplomatic banquets. The building fell into disuse in the 19th century and was finally torn down in 1901 after its numerous tiled archways were sold on the art market. ROM's tile arch has been reassembled with 38 original tiles and four carefully repainted reproductions, while the plain yellow tiles at the centre replace missing pieces.

Creating an arch of this size and detail required great artistic skill and expense. First, clay tiles made in moulds were covered in an opaque white glaze and fired in a kiln. Then, drawings on paper were stencilled onto the tiles by sprinkling charcoal through small holes outlining the design. The workshop's master painted the outlines of the stencilled design using a greasy black pigment that prevented the coloured glazes from bleeding into one another. Artisans carefully applied different coloured glazes within the outlines, and the tiles were fired once more. Finer details, such as facial features and hair, were painted with the same black pigment by the master using a fine brush, and then, the tile was fired one last time at a lower temperature.

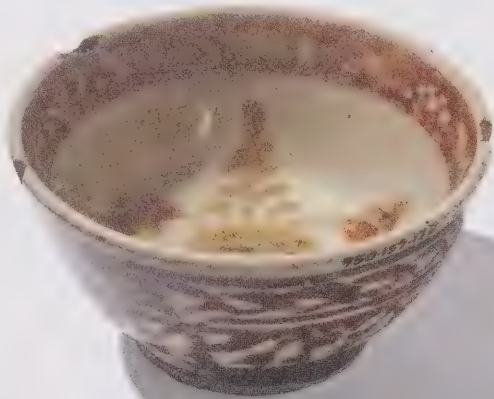


Detail: Tile arch with picnic scene
Around 1685–1695
Probably Talar-e-Tavileh Palace, Isfahan, Iran
Ceramic (earthenware) with overall white glaze and overglaze paints in the black line technique





The Safavids, a Shi'a Muslim dynasty, were great patrons of the arts and architecture and fostered international trade and diplomacy from their newly built capital city, Isfahan, in central Iran.



The scene on the tile arch features live music and, by extension, poetic recitations, creating a multi-sensory ambience. Safavid eating and drinking vessels were often inscribed with verses that invoked blessings upon guests. A large punch bowl proclaims "May every sip you taste from this bowl bring you good health," while a Chinese-inspired blue-and-white dish with deer features poetry from the renowned medieval scholar Omar Khayyam (1048–1131) beginning with the lines "This dish, which the intellect applauds, and on whose forehead it places a hundred kisses!"

Around 1627–1629, Thomas Herbert, an English traveller, visited Safavid Iran. In Isfahan, he tasted coffee for the very first time at a coffee house and described it as "black as soot, thick and strong scented, that pleased neither the eye nor taste." The coffee was served in small ceramic cups, like the one on display. Coffee was also enjoyed at picnics, but before the 1500s, no one in the world had tasted coffee except for the people of Yemen and Ethiopia, from where it originated and later spread around the world.





The long-necked bottles painted on the tile arch would have held beverages such as sherbets and wine. The elegant glass bottle on display at ROM would have been used to sprinkle rosewater to refresh and perfume picnic guests. Called an *ashkdan*—a container for tears—it was made to collect the sorrowful tears of separated lovers, according to Iranian folklore.

Near the bottom of the arch, two musicians sit cross-legged, with one playing a round framed drum (*daff*) and the other holding a stringed instrument (*kamancheh*) in his lap. While not shown on the arch, we have in the Museum's collections a long-necked lute from the early Safavid period. Called a *panjtar* (literally "five strings"), the lute was made from several types of wood and sumptuously inlaid with mother-of-pearl, ivory, and bone with images of elephants and scenes of hounds and lions on the hunt.

The royal pursuits of feasting (*bazm*) and fighting (*razm*) are often paired in Iranian art and literature. By extension, a good warrior must also be a skilled hunter. These themes are referenced on the tile arch as a man with an impressive moustache extends his bow and arrow toward a bird in flight (see detail on p. 17). Hunting parties were typically followed by outdoor banquets.

The immaculately dressed seated figures shown on the arch are seated in repose as they are served delicious food and drink while being entertained with music and feats of archery. The display provides a glimpse into the pastimes enjoyed by people in 17th-century Iran and the rich artistic legacy of the Safavid era.

Long-necked lute
(panjtar)
1575–1600
Iran
Wood inlaid with
mother-of-pearl, ivory,
and animal bone

Opposite, top:
Dish with poetry by
Omar Khayyam
1673–1674
Kirman, Iran
Ceramic (stonepaste),
painted with coloured
pigments under a
transparent glaze
Supported by the
Louise Hawley Stone
Charitable Trust

Opposite, bottom:
Coffee cup
Late 1600s
Iran
Ceramic (stonepaste),
lustre painted over a
transparent glaze
Gift of Miss Helen
Norton

Opposite, right:
Swan-neck bottle
(ashkdan)
Late 1700s
Iran
Glass, dip-moulded
and tooled

Picnics and Pastimes will be on display beginning November 16, 2024, on the main floor of the Museum. These objects and other parts of ROM's Islamic World collections will be displayed in a future gallery as part of the Museum's OpenROM transformation.

Dr. Fahmida Suleman is Senior Curator of the Islamic World collection at ROM.

STRAIGHT TALK

Can AI help us decode sperm whale communication?

By Oliver Haddrath and Jacqueline Miller

LANGUAGE HAS LONG BEEN HELD UP as one of the characteristics that distinguishes humans from other animal species. However, recent research is suggesting that “language” may not be as unique to us as we believe. Many species also utilize sound for communication, and while many of these sounds can be relatively easily understood, such as warning or territorial signals of many birds and mammals, it is the complex acoustic repertoire of whales which is among the most intriguing.

Whales are unique among mammals in sharing with humans large brains that have a high degree of structural complexity. The level of whale intelligence can only be speculated on, but the sperm whale and orca are almost tied for having the largest brains of any animal, which can each weigh over 9 kilograms (the average human brain weighs 1.4 kilograms). While both species of whales have large bodies, they are not the largest whales. Large body size does not guarantee big brains, as we see in sauropod dinosaurs.

In addition to the large size, the surface of a whale’s higher brain (neocortex) is wrinkled or folded, making it densely packed—a trait shared with humans and one generally correlated with intelligence. In fact, some whales have a higher level of cortical folding (gyrification) than we do. Since the 1960s, humans

have tried to understand whether this represents whale intelligence. Some of this research has included examining patterns of variation and motif in whales’ calls and even rudimentary experiments in two-way communication between humans and whales (principally dolphins).

While some of the research has been fruitful, it has fallen short of understanding true interactive communication. Moreover, the question of whether some whale species may have a language of their own remains unanswered. The rise of artificial intelligence (AI) and complex language modelling software seems poised to make a major contribution to answering this question. In the last few years, natural language processing in computer science has begun to revolutionize our ideas of what is possible with AI. Tools such as ChatGPT and others can compose multifaceted narratives and even write computer programs based on minimal user input. Algorithms developed in the last 10 years can simultaneously translate any human language to any other human language without manual input or any need for dictionaries.

In 2020, Project CETI (Cetacean Translation Initiative) was founded as a non-profit organization with the goal to apply advanced machine learning, AI, and robotics to listen, observe, and eventually translate inter-individual communication between sperm whales.







Sperm whales were chosen because, like us, they are highly social and have a complex communication system.

In the Caribbean, female-led family groups of sperm whales can be found year-round off the coast of Dominica. This means calls from individuals can be repeatedly recorded, along with documenting whatever activity the whale is doing when the call is made. This study population is ideal because it provides the opportunity to gather the large quantities of acoustic and observational information which machine learning requires.

Unlike humpback whales, with their long melodic songs, sperm whales generate bursts of broadband clicks. In the 19th century, whalers used to refer to the sperm whales as “carpenter fish” because they could hear the click series

through the hulls of their wooden ships. While most of sperm whales’ signals function to echolocate, they also produce varying sequences of clicks known as codas, which are believed to play a crucial role in their social interactions. These codas can vary in the number, tempo, and rhythm of clicks, potentially allowing for greater complexity if sperm whales have the capacity to recombine them in different ways.

It turns out that they do. Because these patterns resemble musical components, they are given the musical terms inter-click “interval,” “rubato,” and “ornamentation.” Inter-click interval is a way to measure tempo in a series of notes, or “clicks.” Rubato refers to purposeful change in rhythm, while ornamentation (here) refers to the addition of signal flourishes (think of an added

“click” on a coda that occurs in a uniquely expressed way).

Over the last several years, Project CETI has collected massive amounts of bioacoustical data using tethered buoys and other semi-autonomous aquatic robots. CETI published preliminary findings this summer in *Nature Communications*. Their results show that, while it was previously believed sperm whale populations had only 21 distinct codas, they are much more expressive, with 156 distinct coda patterns. “We found that sperm whale vocalizations are significantly more complex than previously believed—with both previously unknown combinatorial structure and context-dependent call modulation,” says Pratyusha Sharma, the lead author of the paper. CETI has also identified variation in rhythm and flourish,

much like the musical terms applied. Minimally, the indication is that sperm whales seem to have a phonetic alphabet—the rudimentary building blocks of language.

This is among the few examples where what was thought to be a strictly human ability has been found in another mammalian species. Researchers acknowledge that their work is just beginning. Future research aims to look for patterns within coda structure and to couple this with associated whale activities, using machine learning and AI. While we may not be ready to talk to sperm whales yet, we are moving a step closer.

Oliver Haddrath is a Collections Technician of birds at ROM.
Dr. Jacqueline Miller is a Collections Technician of mammals at ROM.

Nature in Brilliant Colour

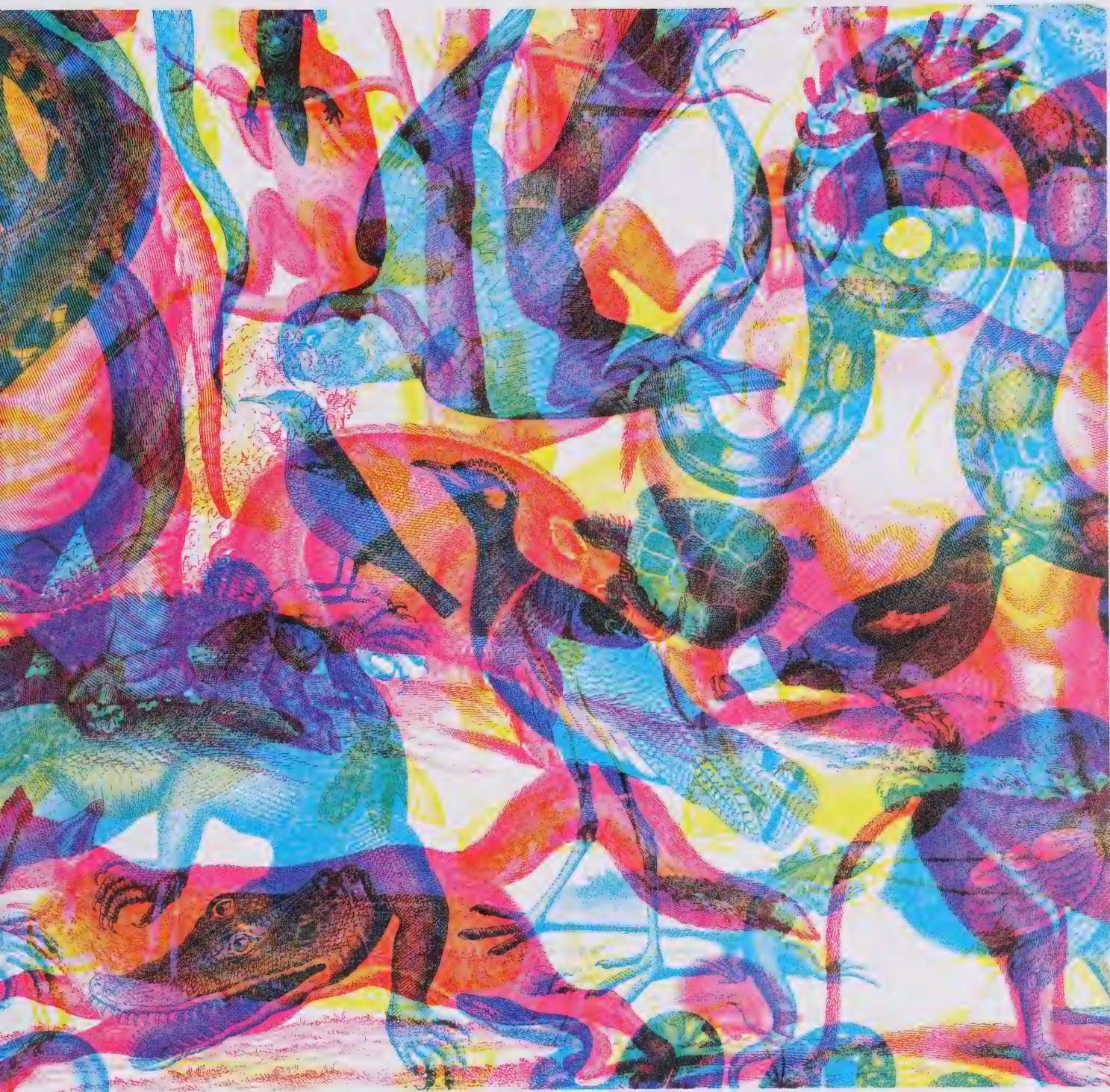
Interview With Heidi McKenzie

Wildlife Photographer of the Year

PART 2



THE EXPERIENCE OF



COLOUR

New exhibition shines a light on nature's diverse hues and how colour is a powerful communicator

By Tabassum Siddiqui

This exhibition was created by the Field Museum.

FROM THE TIME WE OPEN OUR EYES each morning to when those same lids flutter shut at night, we're surrounded by a kaleidoscope of colour. While we might take it for granted, colour plays an indelible role in the world all around us and how we perceive it.

Everywhere we look in the natural world, colour holds meaning. It evokes emotion, conveys information, signals danger, and offers disguise. Even our language signifies how colour elicits certain reactions—think of the phrases “seeing red” or “feeling blue.”

Human history is marked by fascination with colour—going all the way back to Galileo, who inspired a conceptual shift in how early philosophers began to think about colours. Instead of defining colour as something embedded in objects or organisms, they started to recognize that perception played a major role in understanding colour. This helped pave the way for analyzing colour in terms of the physical properties of light (as Newton did), but it left unexplained the way colours look—the experience of colour.

Nature in Brilliant Colour, a new exhibition opening in December at ROM, shines a light on the brightest and boldest examples of the vital part colour plays in nature, including mysteries hidden in plain sight: animals that change colour to mate or camouflage themselves, plants that cast an eerie glow, minerals that glitter in gleaming hues, even shades of colour that the human eye can't detect.

But—as Galileo and his contemporaries wrestled with—what is colour, exactly?



“Colour is your brain’s way of perceiving the frequencies of photons that stimulate your eyes,” explains Richard Murray, principal investigator at York University’s Centre for Vision Research. “Different things reflect different frequencies of photons. A red fox reflects low-frequency photons, a green apple reflects mid-frequency photons, and so on. Being able to perceive these properties of light is very useful because it helps you to understand what it is that you’re seeing.”

The human experience of (and response to) colour barely scrapes the surface of how colour

manifests itself in nature. Each section of *Nature in Brilliant Colour* represents the sequence of hues that make up a rainbow. As visitors move through the exhibition, they will discover how colour is just as important in the animal, plant, and mineral worlds as it is in ours.

“Nature is a brilliant artist, using colour to fill the world with beauty. But there is so much more to it than that,” says Courtney Murfin, Interpretive Planner at ROM. “Each colour in nature communicates important messages. Some say, ‘Pick me,’ while others warn, ‘Stay away!’”

Each colour in nature communicates important messages. Some say, “Pick me,” while others warn, “Stay away!” Some help animals hide, while others are meant to stand out.

“Some help animals hide, while others are meant to stand out. And some aren’t at all what they appear, like polar bear fur (which isn’t actually white!) or a green snake that turns blue after it dies. All of nature’s secret messages are revealed in this exhibition.”

The natural world offers a rainbow of examples: the warning reds of king snakes and velvet ants, the fish and reptiles mirroring the light-reflecting blues and purples of oceans and skies, the earthy yellows and greens that let bees and butterflies hide among the flowers and grass. Colour is inextricably woven into how animals look, behave, and react.

Take camouflage, for instance—a clever tactic that sees animals and plants use colour as a defensive strategy. Also called “cryptic colouration,” camouflaging is used to hide from predators, blend in with surroundings, or mask location or movement. Animals with fur often camouflage themselves seasonally. The Arctic fox maintains a brown summer coat but blends into the snow in winter, when its fur turns white. Birds or fish can quickly shed feathers or scales as needed.

“Colour is so ubiquitous in the animal world that it is difficult to imagine situations where it isn’t relevant. If colour exists, there must be an evolutionary advantage to it,” says Suzanne MacDonald, University Professor in the Department of Psychology at York University.

Colour is also key to mating across species. It is perhaps no surprise that the peacock, with its crown of dazzling turquoise-dappled



The bright, contrasting colours of the poisonous dart frogs send a warning signal about the frogs’ toxicity to potential predators.



Leaf insects create an illusion by blending into leaves, either fresh green or reddish brown, to help protect themselves from predators.



Arctic foxes molt twice a year. In winter, they grow thick white fur that camouflages them in the snow. The thick coat sheds in the summer, getting replaced by thinner brown fur.



feathers, is one of the first animals visitors will encounter as they walk into the exhibition.

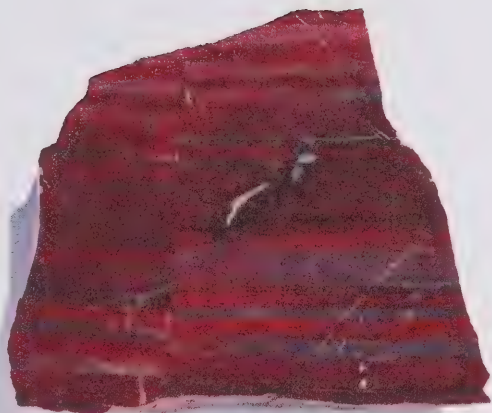
"Colour perception evolved because it gave animals a 'leg up' to be able to use the colours as signals, whether for finding food, attracting mates, or avoiding danger," adds MacDonald, who has done extensive research on animal behaviour in Canada and Kenya. "So colour is vitally important in animal species that have eyes or other receptors equipped to perceive it."

For example, the male peacock's striking jewel-toned tail might seem like a bad way to avoid predators, but it certainly helps entice the females, notes ornithologist Mark Peck, Manager of the Schad Gallery of Biodiversity at ROM.

"Colours are an evolutionary advantage for birds and other species," Peck says. "The brilliance of their many different colours is what makes birds so beautiful and a big part of why we as humans are so attracted to them."

How humans and animals see colours can be very different. It is something researchers continue to study today, both MacDonald and Jacob Beck, Research Chair in Philosophy of Visual Perception at York University, point out. As humans, our visual systems are grounded in three types of photoreceptors, each sensitive to a different wavelength of light. Dogs, in comparison, have only two types of photoreceptors and so are unable to distinguish

Banded iron formation
(quartz variety jasper)
Collected by
Dr. Jack Satterly



Elbaite with liddicoatite



Fluorite on barite
Gift of Kirwin
Consortium



quite as many colours as we can. No wonder Toronto's trash-panda mascots leave an explosion of mess behind when they break into the compost bin: raccoons have only one type of photoreceptor, so their weak vision is akin to watching a black-and-white movie.

On the other hand, some animals are able to see beyond the range of human sight or can adapt themselves to that ineffable hue known as ultraviolet.

"Humans are sensitive to a small portion of the electromagnetic spectrum, while bees and butterflies are sensitive to ultraviolet light, and snakes can sense infrared light," says Beck, who researches animal thought and perception.

"[We have] learned a lot about how colour vision works, but the puzzle of colour experience remains with us today. That's why we don't know what colours actually look like to a bird with four colour photoreceptors or to a bee that sees ultraviolet."

Certain animals, plants, and minerals undergo a drastic colour shift and appear to glow under ultraviolet light—a phenomenon known as fluorescence. Common fluorescent minerals include calcite and fluorite, but some of the eye-catching gemstones on display in *Brilliant Colour* can also fluoresce when exposed to ultraviolet light.

In fact, the mineral world represents as wide a colour spectrum as the animal kingdom does, notes Kim Tait, lead curator of the exhibition and Senior Curator, Teck Endowed Chair of Mineralogy at ROM. Tait selected many of the show-stopping specimens from the Museum's vast collection that will be on display in the exhibition.

"You can find every colour of the rainbow in gems and minerals," says Tait. "Many gemstones have benchmark colours: purple for amethyst, yellow for citrine. Both are the mineral quartz, but it is colour that lends itself to them being called a different name."

The ways colour touches and shapes our world are boundless. From the bright golden tones of the daytime sun to the shadowy greys after dark, our days are filled with colours that paint a unique picture of our relationship with nature and the way we connect with the ecosystems around us.

"I hope visitors to the exhibition take away that we don't all perceive colour the same way," Tait says. "There's so much to learn about how colour plays a role in nature—and we are only one small part of that spectrum."

Tabassum Siddiqui is Communications Manager at ROM.

Contemporary artist
Heidi McKenzie
on the inspiration
behind her most recent
body of work

By Deepali Dewan

PORCELAIN HISTORIES

FROM RECENTLY ACQUIRED TWO ARTWORKS by Heidi McKenzie that function in critical dialogue with each other about the history of Indian indentured labour in the Caribbean. They engage with the history of indenture without reproducing the forms of violence perpetrated by colonial ethnographic-type images. Instead, the insertion of McKenzie's family history into the works makes an intervention that humanizes the subjects depicted.

After the abolishment of African slavery in the British empire in 1833, alternative forms of inexpensive labour were coerced to work the plantations growing lucrative commodities like cotton and sugar in Britain's various colonies. A system of indenture was established in which poor, marginalized, or in some manner compromised people from one part of the British empire were brought to another part of the empire to work for a low wage. They came hoping for a better life, but the system of indenture, referred to by some as the "new slavery," forced them into long hours of hard labour, abuse, and hardship that left them further in debt. Few returned and most ended up settling in their new context.

First Wave (2021) references the first ship that brought Indian people to the Caribbean to work as indentured labourers in 1845. This ship, the *Fatel Razack* or *Futtle Rozack*, sailed from Calcutta to Trinidad carrying 225 migrants. The handmade porcelain sails hold images showing the names of the passengers from the ship's manifest, recently released by the Trinidad and Tobago National Archives, which contain a comprehensive record of the Indian migrants who came to Trinidad from 1845 to 1917. McKenzie's great-great-grandparents on her father's maternal line were possibly on that ship based on the names listed, but more family history research is required to confirm. Naming the individuals who made that first passage makes them visible and gives them voice, commemorating their presence.

Heidi McKenzie
First Wave
2021

Stoneware with
iron-oxide decals
on handmade
porcelain tile
48 × 60 × 20 cm

This acquisition was
made possible with
the generous support
of the Department of
Museum Volunteers
Acquisitions &
Research Fund and
the South Asia
Research and
Acquisition Fund.





I wanted to create something almost primordial that people could respond to on a visceral level, that had some resonance with the diversity of people that live in the lands now known as Canada.

Illuminated (2021) is a set of three LED light boxes in the shape of lanterns with images of “coolie belles,” taken from mass-produced postcards, on handmade porcelain tiles. Women were the minority among the indentured workers. The ones who did come were likely fleeing a difficult situation at home such as prostitution, assault, or widowhood. When they arrived, they were assigned in marriage to a man, most working similar hard labour as the men, or given domestic work. Toward the end of the 19th century, studio photographs were produced of Indo-Caribbean women dressed in elaborate garments and silver jewellery. The photographs were produced by European photographers and widely circulated as postcards for the tourist industry. The women in these photographs came to be known as “coolie belles”—combining “coolie,” a derogatory word for a low-class labourer, and “belles,” referring to a beautiful woman. The “coolie belle” imagery conveyed the Caribbean as an exotic, picturesque location with beautiful, happy, unthreatening locals. The “coolie belle” images selected by McKenzie were sourced from private, public, and online collections. Within this mix, McKenzie has inserted a photo of her great-great-grandmother, Roonia, from her father’s paternal line. By doing so, McKenzie reclaims the “coolie belle” away from an exploitative tourist gaze and back into the familial relationships the women were a part of as individuals.

On her recent visit to ROM, McKenzie and I chatted about how these two artworks make a decolonial gesture toward reclaiming history through the insertion of family photographs and personal connections.

DD: Your work integrates themes of gender, ancestry, and migration. How do those subjects influence *First Wave* and *Illuminated*? HM: If we start with *First Wave*, it is literally a representation of the very first ship that landed

on the shores of Trinidad. It’s possible that my father’s maternal ancestors were on the *Fatel Razack*; but names were incorrectly transcribed by the British. What we do know is that my great-great-grandmother Roonia, the woman who sailed from Calcutta to Guyana in 1864, converted to Islam to escape her Hindu low caste. Her son, Jadoo, left Guyana for Trinidad and converted to Christianity, at which point he changed his name from Jadoo to James McKenzie.

My great-great-grandmother’s photo is on one of the lamp panes in *Illuminated*. When I conceived of the series, I think I might have thought of the title before I made the work. I really wanted to illuminate the lives of the women. I received a digital version of the photograph of my grandmother about 12 years ago through a cousin. That started a whole journey for me. Really just looking at this photograph got me very, very excited. I mean, what are those bangles? What are the rings? What is she wearing? I was also inspired by Gaiutra Bahadur’s book *Coolie Woman*. I learned all sorts of things reading that book—that I had held false assumptions about these women. I wanted to show their histories. I wanted to give them voice because their voices were taken away.

I find it moving that, within this grouping of women whose names we’ve lost, you’ve inserted your great-great-grandmother Roonia. What was the inspiration to do that? You know, when you ask me that question, I feel a visceral feeling in my gut. I think, on the one hand, it was a very intuitive move. But at the same time, it was also a very calculated move. Placing Roonia on this lantern, all of a sudden, kind of crystallized for me my position within the diaspora. I can envision this spinout as almost infinite possibilities of looking at, positioning, and working within the South Asian diaspora, and my father, myself, my grandfather, my grandmother.

Heidi McKenzie in her studio.

Opposite:
Heidi McKenzie
Illuminated
2021

A set of three LED light boxes with iron-oxide decals on handmade porcelain tiles
ht. 15.25 x 22.86 cm
This acquisition was made possible with the generous support of the Department of Museum Volunteers Acquisitions & Research Fund and the South Asia Research and Acquisition Fund. McKenzie’s great-great-grandmother’s photo is the one on the far left of this image.

First Wave also weaves in similar themes of migration, family, and the history of indenture. Can you talk about your process in making it? The structure of the boat itself is made from literally playing with cardboard and making templates and figuring out what I wanted. This was followed by slabs of clay. The sails are porcelain and have the manifest of the *Fatel Razack*. It was a big deal when the government of Trinidad decided to release that manifest to the public—they had never released any of the ships' manifests before. I was really excited when that happened. The portholes are made with images of British and Indian coins from the year the ship sailed—in 1845. The other reason that I used coins is to underscore the commodification of human labour and trade.

Both works are made up of different kinds of ceramic material. What do you like about working with ceramic? I am starting to work in multimedia—incorporating video and augmented reality and archival photography—on the wall and not just on ceramics. But ceramics was really my first understanding of who I was as an artist.

I came to art as a mature artist. But I've always loved art, and I had started working in the arts. Around my 40th birthday, my parents were downsizing, and my mother, who

kept everything, came to our house and handed me an essay that I had written when I was 10 years old. There were three pages of "what I want to do when I grow up." I had written that I wanted to be a potter. I had even drawn little diagrams and written about why and what it meant to me. Honestly, it was a shazam moment. This is what I was meant to do with my life. And I really just did it. I quit everything and I did it.

What would you say are some of the major milestones in the evolution of your artistic practice? In 2017, I went to Australia for three months because I wanted to mentor with Mitsuo Shoji, whose work is very minimalist. I learned the techniques of how to do the kind of work that I wanted to do. I just sort of pulled some forms out of ... I guess my soul and started working with them. I wanted to create something almost primordial that people could respond to on a visceral level, that had some resonance with the diversity of people that live in the lands now known as Canada.

I was really impacted by the terra nullius belief that there were no people here when the Westerners arrived. I spent some time with the Indigenous communities in the interior of Australia. The Indigenous people of Hermannsburg, from the Western Arrernte language group, were painting their stories

onto thrown or pinched pots, which partly affected my desire to tell my stories and my family's own stories.

I started working with photography on clay in 2014. I began photographing my own body or having somebody photograph my body and putting it onto clay. And then shortly thereafter, I knew my father's life was short, so I started documenting him and his body and his life and his stories. And then Canada turned 150, and I was like, okay, where do I fit within the Canadian landscape?

I grew up on the East Coast, and I didn't have many people around me who looked like me. One story grew into another story and then into another, until I came to the point where I wanted to tell the stories of other Indo-Caribbean peoples. That's how it kind of snowballed.

Heidi McKenzie (b. 1968) is of Indo-Trinidadian and Irish American heritage and grew up in Fredericton, New Brunswick. She left a successful career in the broadcast industry to pursue ceramics full-time and apprenticed herself to renowned potters in India and Australia. McKenzie's work has been exhibited in Indonesia, Australia, Ireland, Denmark, Hungary, the U.S., and Canada. Her art can next be seen on display at Workers Arts and Heritage Centre of Hamilton and Gallery 1C03 in Winnipeg in February 2025.

Deepali Dewan is Dan Mishra Curator of Global South Asia at ROM.



THE BEST OF WILDLIFE



**Wildlife
Photographer
of the Year**

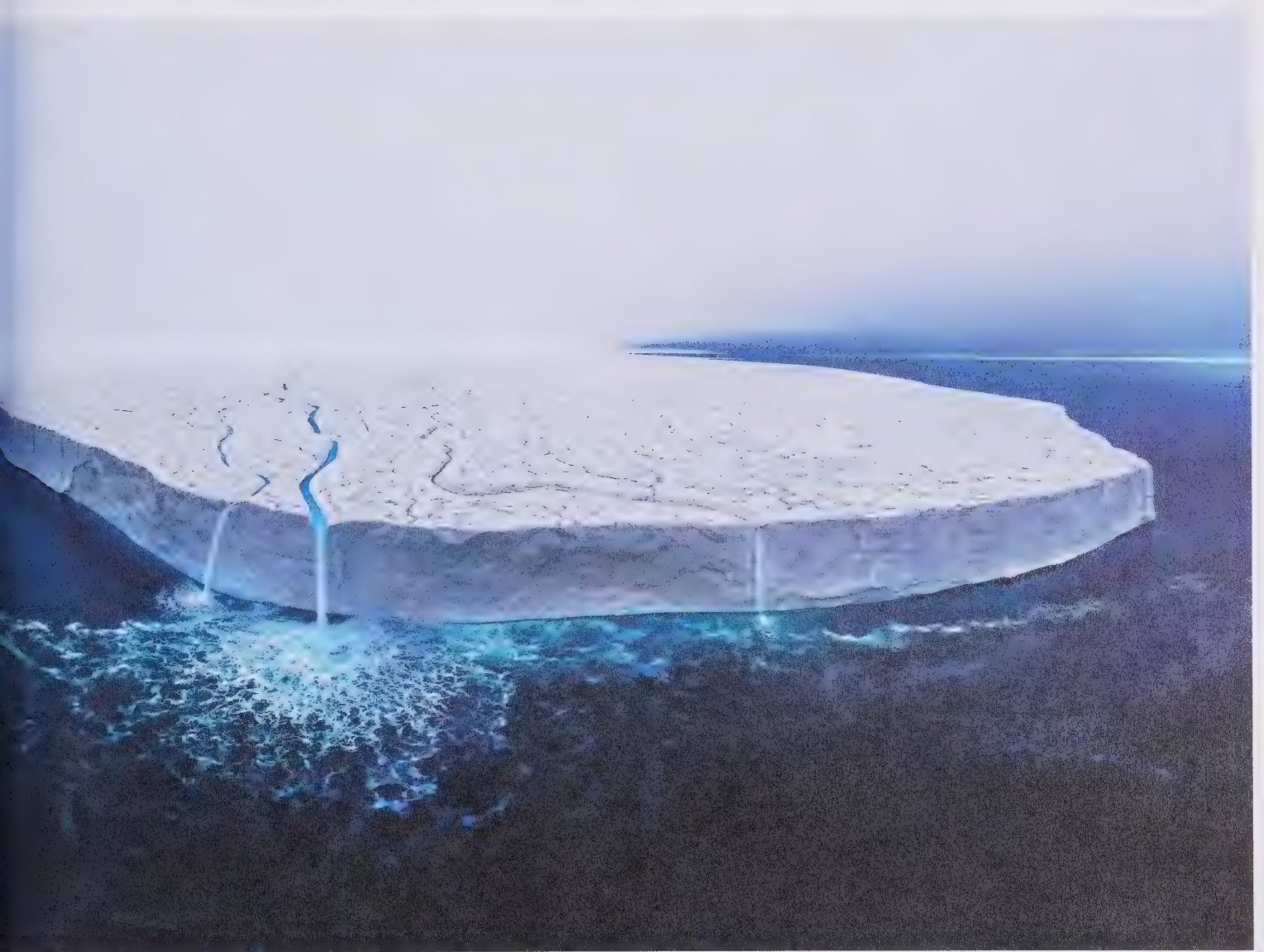


**Natural
History
Museum
London**

Wildlife Photographer of the Year is developed and produced by the Natural History Museum, London. This exhibition is generously supported by the Royal Exhibitions Circle.

**The Disappearing Ice Cap
by Thomas Vijayan, Canada**
HIGHLY COMMENDED,
OCEANS: THE BIGGER PICTURE

PHOTOGRAPHY



Award-winning photographs capture the beauty and vulnerability of our planet

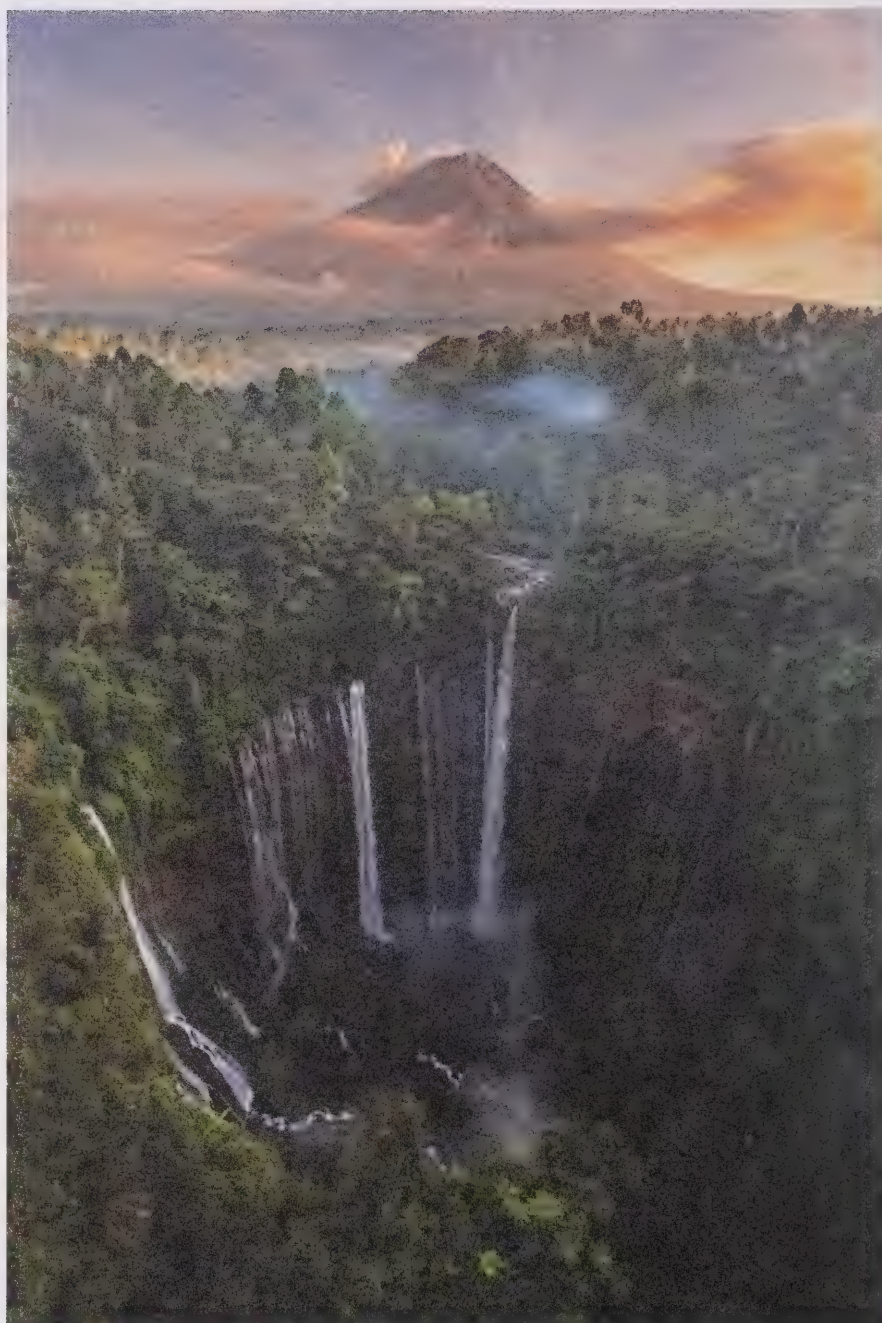
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RETURNING FOR ITS 41ST YEAR, the critically acclaimed *Wildlife Photographer of the Year* exhibition is back at ROM. From stunning landscapes and powerful natural events to intimate photographs of the extraordinary species living on Earth, this world-touring exhibition is the longest-running competition of its kind, which celebrates the very best in nature photography.

This prestigious global photo competition has been presented since 1984, and each year showcases a brand new set of photographs that express the beauty of the world around us. With dozens of categories from Animal Portraits to Underwater World to Urban Wildlife, special awards, and separate divisions for young and adult entrants, the competition offers breathtaking views of our planet from photographers across the globe. *Wildlife Photographer of the Year* opens on December 21, 2024, and runs until May 4, 2025.

Coming Soon
December 21, 2024, to May 4, 2025

Waterfall Wonder by
Joan de la Malla, Spain
HIGHLY COMMENDED,
WETLANDS: THE BIGGER PICTURE



Supporting ROM

ROMTravel

Object Highlight

PART 3

THE IMPORTANCE OF PHILANTHROPY



WE LIVE ON IN WHAT we leave behind. I love this statement. As a newcomer to ROM Governors, I see its meaning expressed through each exhibition, program, and activity that ROM shares with its vast and diverse community. I also see it manifested through the incredible ROM advocates, who have impressed me from my very first day with their dedication to this remarkable Museum.

As someone whose career has spanned decades within the arts and culture sector across Canada and the U.S., I've had the good fortune to work with many supporters who want to witness firsthand the fruits of their generosity being enjoyed, nurtured, and put to work. Often, that is achieved through philanthropy, with a goal to improve the world both during and after their lifetimes.

That idea becomes even more poignant when viewed through the lens of several upcoming exhibitions and projects. *Auschwitz. Not long ago. Not far away.*, opening this January, will provide not only a profound remembrance of unthinkable tragedy but also a timely reminder of how we must come together to shape a better shared future. *Nature in Brilliant Colour*, coming next month, will bathe us in the kaleidoscopic colours of our beautiful, complex Earth—prompting us to think about how we treat our physical planet now and how we will leave it behind for future generations. The recently announced Global Sikh Art & Culture Gallery and Program will bring together visitors of all backgrounds to explore the richness of Sikh heritage, reminding us of the perspective the

many cultures of the world have to offer in this modern day of globalization.

A project that particularly excites me, however, is OpenROM. I've joined ROM Governors at a time when the Museum's vision is a clear call for us to connect with one another, celebrate our differences, and explore our similarities. I have always been attracted to opportunities to build and grow an organization, and I'm proud to join ROM at a time that will allow me to play a role in working alongside Josh Basseches, the Board of Governors, and the Board of Trustees to bring the Museum's inspired vision and mission to life.

As we look toward an exciting future through OpenROM, we envision the ways this place will enrich the lives of Torontonians and

visitors from across Canada and the world. We will put our collective stamp on history and declare that art, culture, and nature can bring us together to shape our shared future. In doing so, we are ensuring that we can all live on in what we leave behind.

You can be part of this historic moment through your generosity. Please visit rom.on.ca/support today.

Janice Price joined ROM Governors as President and CEO in October 2024.

LIVES & LEGACIES: TAKING AN INTEREST

SAMPA BHADRA AND JOHN MARTIN rediscovered ROM at the perfect time. During the COVID-19 pandemic, the Museum's digital offerings provided much-needed escapes for the pair and opened a new avenue of lifelong learning they could enjoy together, befitting their wide-ranging interests.

"ROM's online talks cover a broad range of fascinating topics. We were so impressed with them that the Museum now has two new donors," says Sampa. "From our home, we learned about Japanese prints, textile making, the art and science of musical instruments, and more. When we finally got to visit again in person, we came to appreciate how much ROM truly has to offer."

Physicists, amateur musicians, and art lovers, Sampa and John are passionate about expanding horizons—for themselves and for learners of all ages.

"I'm always glad to see school buses outside the Museum," says John. "It's wonderful that young students can have that experience but equally important that virtual learning is accessible for classes across rural Ontario. We're

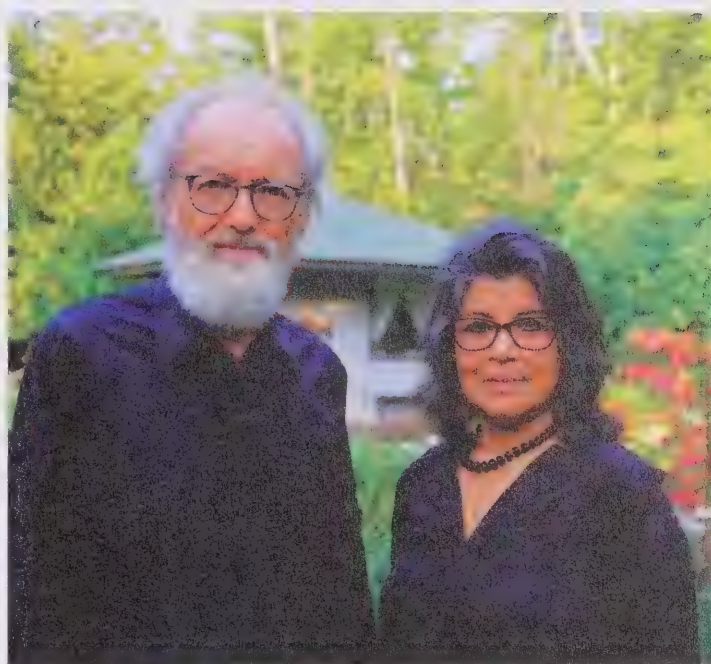
delighted our bequest will provide funding for these programs to engage a younger generation with this cultural gem."

Through their academic work, Sampa and John are also keenly aware of the existential threat posed by climate change. "ROM's new position of Schiff Curator of Climate Change (and the appointment of Soren Brothers) is inspired!" says John. "I hope it will help move the needle toward more urgent climate action."

With the future and estate planning in mind, the pair connected with ROM staff to design a gift that matched their specific interests and fit their lifestyle. They settled on leaving a residual gift in their will to support the Museum's climate and education initiatives and textile collections.

"ROM is a happy intersection of our broad interests," says Sampa. "Art and culture across time, geological history and the evolution of life, our climate future—there is something for everyone."

Through their gift, Sampa and John join the Currelly Legacy Society, a visionary group of donors ensuring the future of the



Museum while enjoying special benefits, including invitations to exclusive events and lifelong learning opportunities.

"ROM is one of the great museums," say Sampa and John. "We would encourage everyone to invest in our city and in Ontario's intellectual prosperity, to help raise this important institution's international profile."

To learn more about the impact you can make by leaving a legacy at ROM, contact janicec@rom.on.ca.

PARTNERSHIP IN ACTION.

Our Education partnership with the Toronto Holocaust Museum enables us to offer an exceptional learning experience for thousands of school-aged students to visit ROM's upcoming exhibition, *Auschwitz. Not long ago. Not far away.*

Thank you, THM, for your generous support.



BECOME A ROM PATRON

PHILANTHROPY HAS BEEN at the heart of ROM for over a century, ever since Sir Edmund Walker became the Museum's founding Chairman and Patron. His vision and generosity were instrumental in establishing ROM as Canada's leading museum and an international destination for discovery and wonder.

Today, you have the opportunity to continue this legacy by becoming a ROM Patron. Patrons are among ROM's most dedicated supporters and play a vital role in advancing its mission. Their generous annual contributions provide steady, multi-year funding that helps enhance the Museum's exhibitions and galleries, curatorial leadership, research initiatives, and educational and community outreach programs.

Patrons receive exclusive benefits that deepen their connection to the Museum. They enjoy unlimited access to special exhibitions and galleries. Imagine previewing major shows before they open to the general public or attending private events with curators and experts who share behind-the-scenes stories about the collections. And the best part? You'll be part of a vibrant community of like-minded individuals who share your passion for art, culture, and nature.

Now—more than ever—philanthropy is critical to ROM's success. Just as Sir Edmund Walker shaped the Museum we know and love today, your support as a Patron can help ensure it continues to inspire and educate audiences for generations to come.

Join a Patron Circle today, and enjoy access to all that your support makes possible.



ROM offers three dynamic patron circles to choose from, with each unlocking unique benefits and tailored opportunities. Choose the membership level that is right for you.

Royal Patrons Circle

Join an incredible community of supporters dedicated to ROM's mission, and enjoy the year-round access and exclusive benefits not available at any other level.

Young Patrons Circle

Connect with a dynamic group of young professionals through exciting networking opportunities and Museum experiences.

Discovery Patrons Circle

Deepen your commitment to ROM, and enjoy complimentary access for you, your family, and your friends.



THANK YOU TO OUR SPONSORS



Thank you to everyone who was part of the eighth annual ROM Classic Golf Tournament on September 23, 2024. Since 2016, the tournament's participants and sponsors have raised over \$1 million net in support of Canada's leading Museum. Congratulations to you all!

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ROM

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BERLIN AND WARSAW: TWO CAPITALS REBORN

Join us on an incredible 11-day itinerary as we travel to two historic capitals. Delve into the complex past, remarkable post-Cold War renaissance, vibrant present, and dynamic future of Berlin and Warsaw.

Learn about each city's fascinating history and explore charming gardens and magnificent palatial estates: Charlottenburg in Berlin, Sanssouci in Potsdam, and Wilanów in Warsaw. Learn about the events that occurred during the Second World War and the Cold War and the present-day revitalization that is underway in each city today. Enjoy luxury accommodations, fine cuisine, and exclusive behind-the-scenes access to Central Europe's largest cities.

This is ROMTravel's first trip to Poland and coincides with the International Chopin Piano Competition, a prestigious event that happens every five years. Trip participants will be part of the celebration with tickets to the competition's gala Prize Winners' concert.

October 15 to 26, 2025



INTO THE NORTHWEST PASSAGE

Experience the Arctic like never before. Sail through the famous Northwest Passage in a truly unique and exclusive expedition that incorporates immersive experiences with incredible learning opportunities only our experts can provide. Float through ice packs on Zodiacs, see massive icebergs up close, learn about Franklin's doomed expedition, and experience the culture of Arctic communities in both Canada and Greenland. And that's just the beginning.

Meet our experts in botany, ornithology, geology, and Inuit culture, who will share their experiences in the region, helping participants to engage and appreciate the Arctic's unique wildlife and beauty. Create unforgettable, lasting memories of our majestic North with ROMTravel. If you have ever wanted to go to the Arctic, now is the time.

Saturday, August 16, 2025 to Monday, September 1, 2025



For more information or to find out about upcoming trips, visit rom.ca/romtravel or contact ROMTravel at travel@rom.on.ca or 416.586.8034.

CANADIAN WATERCOLOURS

New publication offers a window into Canadian history



OUR NEWEST PUBLICATION is an exploration of the watercolour paintings in ROM's collection and showcases a legacy of pictorial Canadiana.

The third and final volume in the *Canadian Watercolours* series, this catalogue analyzes the lands now known as Canada through images of landscapes, cultural events, and individuals. Co-authored by Mary Allodi, late Curator Emeritus, and Arlene Gehmacher, L.R. Wilson Curator of Canadian Art & Culture at ROM, this publication is an investigation into artistic technique, geography, and the socio-political landscape at the time these works were painted.

From aerial landscapes and intimate portraits to evocative scenes of daily life,

the striking art within covers a century of Canadian heritage. The scene above presents a view of Church Street Public School, which is located on the southeast corner of Church and Alexander streets. One of hundreds of paintings featured in this publication, the scene reflects how artistic representations of places, people, and scenery allow us to inhabit historical spaces and experience the lives and worlds captured by the artists.

By browsing the pages of *Canadian Watercolours and Drawings, Volume 3*, readers will get a glimpse into Canada's past as experienced by more than 100 artists featured in this catalogue.

Daniel McIntosh
Paterson (1894–1968)
*School Yard, Church St.
Public School, Toronto*
Circa 1930
Watercolour, touches of
gouache, over graphite,
on paper card
43.3 × 55.9 cm
Gift of Mr. D.A. Paterson

Members price: \$36
Hardcover, 336 pages

CELEBRATING GENEROSITY

THANK YOU FOR MAKING
ROM CELEBRATION 2024
A HUGE SUCCESS!

On June 5, 2024, ROM warmly welcomed close to 400 guests for its annual ROM Celebration event. Inaugurated in 1985 as the Chairman's Reception, this beloved and longstanding tradition celebrates the many dedicated supporters and volunteers whose generosity enables the extraordinary exhibitions, programs and activities that make ROM Canada's leading Museum.

Congratulations to our honorees, and thank you to all our supporters for everything you do. Your tireless dedication and support will continue to inspire and transform our community for generations to come, proving that **we live on in what we leave behind.**

Lieutenant Governor's Distinguished Service Award

Stephen Bowman | Liz Mitchell

Donor of Merit Award

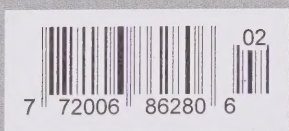
The Bhalla Family
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Bikram Singh Dhillon
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Sarabjit & Amin Marwah
Sandhu Developments
Samuel & Esther Sarick & Family
The Toor Family Foundation

Distinguished Corporate Service Award

BASF Canada



\$5.95 CAN
Display until April 30, 2025



ROM